

# Audit



# Report

OFFICE OF THE INSPECTOR GENERAL

**ACQUISITION OF THE E-3 AIRBORNE WARNING AND  
CONTROL SYSTEM'S RADAR SYSTEM IMPROVEMENT  
PROGRAM**

Report No. 94-066

March 25, 1994

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revised to omit proprietary data.

**Department of Defense**

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### **Acronyms**

AWACS	Airborne Warning and Control System
DFARS	Defense Federal Acquisition Regulation Supplement
DPRO	Defense Plant Representative Office
EMD	Engineering and Manufacturing Development
FAR	Federal Acquisition Regulation
NATO	North Atlantic Treaty Organization
RDCU	Radar Data Control Unit
RDP	Radar Data Processor
RSIP	Radar System Improvement Program



**INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-2884**



March 25, 1994

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION  
AND TECHNOLOGY  
ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)  
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Acquisition of the E-3 Airborne Warning and Control System's Radar  
System Improvement Program (Report No. 94-066)

We are providing this report for your review and comments. It discusses opportunities for program improvement on issues relating to component breakout, contract award fees, and property management. Comments on a draft of this report were considered in preparing the final report.

DoD Directive 7650.3 requires that all recommendations be promptly resolved. Therefore, we request that the Under Secretary of Defense for Acquisition and Technology and the Director, Defense Logistics Agency, provide comments on the unresolved recommendations and the internal control weakness by May 24, 1994. Also, we request that the Air Force provide us a copy of the results of the ongoing component breakout evaluation when it is completed.

We appreciate the courtesies extended to the audit staff. If you have any questions on this audit, please contact Mr. John Meling at (703) 614-3994 (DSN 224-3994) or Mr. David Wyte, Project Manager, at (703) 693-0497 (DSN 223-0497). The audit team members are listed inside the back cover. Appendix I lists the distribution of this report.

*David K. Steensman*

David K. Steensman  
Deputy Assistant Inspector General  
for Auditing

## Office of the Inspector General, DoD

Report No. 94-066  
(Project No. 3AS-0020)

March 25, 1994

### THE ACQUISITION OF THE E-3 AIRBORNE WARNING AND CONTROL SYSTEM'S RADAR SYSTEM IMPROVEMENT PROGRAM

#### EXECUTIVE SUMMARY

**Introduction.** The Radar System Improvement Program (RSIP) is being developed to provide the United States and its North Atlantic Treaty Organization partners with new and improved capabilities for the E-3 Airborne Warning and Control System's (AWACS) radar. The RSIP is an Air Force program with estimated U.S. development and procurement costs of \$866.7 million (then-year dollars) for 34 RSIP kits. Kits consist of new computers and panels and modifications to receivers, oscillators, synchronizers, angle controls, antenna control units, and aircraft for the radar interface.

**Objective.** The audit objective was to evaluate the acquisition management of the E-3 RSIP. Specifically, the audit was to determine the adequacy of efforts to develop an economical and efficient radar system and to prepare that system for production and deployment. We also reviewed associated internal controls.

**Audit Results.** Since 1988, the AWACS Program Management Office has initiated several actions to facilitate overall management of the RSIP. However, our audit identified three conditions requiring management actions.

- o The AWACS Program Management Office had not developed a plan to make a comprehensive component breakout review to support the E-3 RSIP production decision planned for September 1995. As a result, the Air Force may miss an opportunity to reduce costs (Finding A).

- o The Award Fee Review Board recommended award fee amounts that were not substantiated by Westinghouse's performance on the RSIP contract. As a result, the Award Fee Review Board recommended more than \$1 million in Westinghouse award fee payments that were not warranted (Finding B).

- o Although the contract contained special provisions for title to property, the Defense Plant Representative Office-Westinghouse was excluding property acquired through progress payments on the E-3 RSIP contract from its review of Westinghouse's property control system. As a result, approximately \$10 million of property acquired through progress payments may not be transferred to the Government at the completion of the Westinghouse contract (Finding C).

**Internal Controls.** The audit did not identify any material internal control weaknesses. The portion of the DoD Internal Management Control Program we reviewed was implemented effectively. See Part I for internal controls reviewed.

**Potential Benefits of Audit.** The Air Force could reduce costs by about \$7.7 million during the Future Years Defense Program (FYs 1994 through 1999) by breaking out 11 radar kit components as Government-furnished equipment. Appendix G lists potential benefits of the audit.

**Summary of Recommendations.** We recommended that:

- o the Air Force perform a component breakout review to support the E-3 RSIP production and deployment decision;

- o the E-3 RSIP Award Fee Review Board use performance criteria to make Westinghouse contract award fee recommendations and develop a scoring methodology that is consistent with the award fee plan performance criteria; and

- o the Under Secretary of Defense for Acquisition and Technology clarify DoD Manual 4161.2-M, "Performance of Contract Property Administration," to require organizations responsible for contract property administration to include property acquired through progress payments in their contractor property control system reviews when the Government acquired a lien or title not solely because progress payments were made.

**Management Comments.** The Air Force agreed to complete a component breakout review before the production decision planned for September 1995. The Air Force agreed that the E-3 RSIP award fee process needed improvement and stated that the AWACS Program Management Office had initiated action to effect a bilateral contract change to revise the award fee plan performance criteria and scoring methodology. The Assistant Secretary of Defense (Economic Security) and the Defense Logistics Agency nonconcurred with the recommendation to clarify the DoD Manual 4161.2-M. They stated that progress payment inventory is specifically excluded from Federal Acquisition Regulation property management requirements. Part II contains a complete discussion of management's comments to the report; and Part IV contains the complete texts of managements' comments.

**Audit Response.** We disagree with management comments on the recommendation to clarify property administration requirements in DoD Manual 4161.2-M. Federal Acquisition Regulation, subpart 45.000, does not exempt property acquired through progress payments from being subject to contractor property control system reviews when the Government acquires a lien or title to the property not solely because progress payments were made.

We request that the Air Force provide us a copy of the results of the ongoing component breakout evaluation when it is completed. We also request that the Under Secretary of Defense for Acquisition and Technology and the Director, Defense Logistics Agency, respond on the unresolved issues in this final report by May 24, 1994.

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This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, Department of Defense.

## **Part I - Introduction**

## Background

The E-3 Airborne Warning and Control System (AWACS) is a key element of the U.S. general purpose forces, supporting air defense and tactical operations by providing extended, all-altitude radar surveillance over land and water. The E-3 Radar System Improvement Program (RSIP) will provide the United States and its North Atlantic Treaty Organization (NATO) partners with improvements in radar sensitivity for target identification and improve its resistance to radar jamming. Also, the RSIP will improve radar maintainability and reliability and expand and make more user friendly radar monitoring and control.

The AWACS Program Management Office manages the RSIP acquisition for the Air Force. During engineering and manufacturing development (EMD), Boeing Aerospace Company (Boeing) and Westinghouse Electric Corporation (Westinghouse) are associate contractors for developing the RSIP-prototype kits. Kits consist of new computers and panels and modifications to receivers, oscillators, synchronizers, angle controls, antenna control units, and aircraft for the radar interface. Boeing was awarded a fixed-price incentive contract, totaling \$95.3 million, for the design, delivery, installation, and integration of the new radar on the E-3 AWACS. Westinghouse was awarded a fixed-price incentive contract, totaling \$272.2 million, for the design, development, demonstration, and delivery of the new radar kits. Both contracts included provisions for award fees.

Westinghouse development schedule delays and increased procurement costs have caused the AWACS Program Management Office to submit program deviation reports to the Air Force Acquisition Executive. RSIP schedule delays resulted from Westinghouse software development problems and integration slippages. Program funding cuts in the FY 1994 President's Budget resulted in program extension and cost increases.

The Air Force Acquisition Executive plans to review the readiness of the E-3 RSIP for production in September 1995. The Air Force estimated that U.S. development and procurement costs for the 34 E-3 RSIP kits will total about \$866.7 million (then-year dollars).

## Objective

The audit objective was to evaluate the effectiveness of the RSIP acquisition management to determine whether the RSIP was being cost-effectively developed and prepared for production and deployment. We followed our critical program management elements approach for the audit. The objectives and scope of the audit were tailored to the status of the RSIP in the EMD phase of the acquisition process. We reviewed reliability and maintainability,



configuration management, weapon system integration, testing, scheduling, cost estimating and analysis, contracting, production preparedness, program stability, and internal controls related to these objectives.

At the completion of the audit survey, we determined that additional work was not warranted for reliability and maintainability, configuration management, weapon system integration, scheduling, and program stability (Appendix A). Four areas of concern pertaining to testing, cost estimating and analysis, and contracting are discussed in "Other Matters of Interest" (Appendix B). Part II discusses findings and recommendations pertaining to production preparedness involving acquisition planning for component breakout and contracting involving contract award fees and property management.

## Scope and Methodology

This program results audit was performed from February through September 1993 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and included such tests of internal controls as were deemed necessary. We reviewed data from the program's inception in December 1988 through October 1993 to accomplish our audit objectives. Data reviewed included acquisition strategies and plans, system operating requirements, contracts, cost data, logistics support plans, life-cycle cost estimates, budgetary data, a draft test and evaluation master plan, procurement data, and property records. With assistance from Defense Plant Representative Office (DPRO)-Westinghouse and Defense Contract Audit Agency personnel, we analyzed four components of the RSIP for potential component breakout (Appendix C). We also interviewed DoD, Air Force, Defense Contract Management Command, and contractor officials involved in the RSIP. Computer-based data are not used in the report. Appendix H lists the organizations visited or contacted.

A lawyer from the Office of General Counsel, DoD, assisted in our review of a payment-in-kind modification awarded in the Westinghouse contract.

## Internal Controls

We assessed internal controls related to the critical program management elements of the RSIP system acquisition and the AWACS Program Management Office's most recent vulnerability risk assessments and Internal Management Control program. The audit did not identify any material internal control weaknesses as defined by Office of Management and Budget Circular A-123 and DoD Directive 5010.38.

### Prior Audits and Other Reviews

Since 1988, the E-3 RSIP has been the subject of two Air Force Audit Agency audits that related to our audit objectives.

Air Force Audit Agency Report 40493010, "Management of Award Fee Provisions, Electronic Systems Center," February 1993, reported that the fee-determining official increased the Award Review Board fee recommendation without adequate support. The audit recommended that the fee-determining official explain all changes made to the Award Review Board's recommended fee amounts. The Program Executive Officer nonconcurred but later implemented the recommendation.

Air Force Audit Agency Report 92063002, "Management of Software Development for the E-3 Radar System Improvement Program Modification," October 1992, reported that the AWACS Program Management Office did not plan on performing independent verification and validation for RSIP software. The audit recommended that the AWACS Program Management Office establish an independent verification and validation program for RSIP software. The Air Force concurred and made the Mitre Corporation responsible to establish and perform the RSIP software-independent verification and validation program.

## **Part II - Findings and Recommendations**

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## **Finding A. Acquisition Planning for Component Breakout**

The AWACS Program Management Office had not developed a plan to make a comprehensive component breakout review of Westinghouse radar kits before the E-3 RSIP production decision planned for September 1995. The June 1989 Acquisition Strategy Report stated that component breakout was not considered feasible during early production because additional Program Management Office resources would be required to manage a component breakout program and the Program Management Office would lose the right to hold Westinghouse accountable for total systems performance responsibility. As a result, the Air Force may miss an opportunity to reduce costs by as much as \$7.7 million over the Future Years Defense Program (FYs 1994 through 1999).

### **Background**

**Component Breakout.** Breakout is the process whereby the Government purchases components directly from the manufacturer or supplier and furnishes them to the end-item prime contractor as Government-furnished equipment. The Government eliminates the prime contractor's overhead and profit on those components and achieves savings for the Government.

**DoD Policy.** DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," part 5, section A, February 1991, as updated in February 1993, requires that component breakout be considered in every program and be done when significant cost savings are possible and the technical or schedule risk of furnishing Government items to the prime contractor is manageable. DoD Manual 5000.2, "Defense Acquisition Management Documentation and Reports," part 4, section D, February 1991, requires the Military Departments to submit an acquisition strategy report in support of program milestone reviews. In the acquisition strategy report, the Military Departments are to list components considered for breakout and provide rationale for each component where a decision was made not to pursue component breakout.

The Defense Federal Acquisition Regulation Supplement (DFARS), Appendix D, "Component Breakout," identifies candidates for breakout as components that have an annual acquisition cost of at least \$1 million. DFARS, Appendix D, further requires program managers to identify potential breakout candidates and to make and document breakout reviews. Program managers were to consider component breakout feasible if the decision would not significantly affect the quality, reliability, performance, or timely delivery of the weapon systems.

## **Component Breakout Planning**

The AWACS Program Management Office had not developed a plan to conduct a comprehensive component breakout review of the RSIP. In the June 1989 Acquisition Strategy Report, the Program Management Office stated that component breakout was not feasible during early production for two reasons:

- o additional Program Management Office resources would be required to effectively negotiate and manage contracts for a component breakout program, and

- o the Program Management Office would risk losing the right to hold Westinghouse accountable for total systems performance responsibility.

## **Component Breakout Candidates**

The Westinghouse radar kit included 34 components that required limited or no Westinghouse labor effort to prepare the components for installation in the radar. With assistance from personnel at DPRO-Westinghouse and the Defense Contract Audit Agency, we determined that 11 of the 34 components were viable component breakout candidates. The other 23 components were eliminated because of low component values, component assembly and integration complexities, or immaturity of the component design and demonstrated reliability.

Of the 11 viable component breakout candidates, we reviewed the 4 highest dollar value components for our audit test. The components selected were the radar data processor, the radar data control unit, the backplane assembly, and the spectrum analyzer. Westinghouse purchased the spectrum analyzer as an off-the-shelf item. With the exception of the spectrum analyzer, we visited the other three component manufacturers to evaluate design stability, evaluate the manufacturer's delivery history in relation to contract requirements, review the frequency and nature of components being returned because of defects, and determine the efforts required of the prime contractor before assembling supplied components into the radar kits. In addition, we interviewed quality assurance representatives to determine the quality of components being manufactured and to obtain their opinions on whether the components were candidates for component breakout.

Our review showed that the four components met the DFARS criteria for component breakout in terms of reliability, design stability, prime contractor value added, and warranty availability. Details of the four components are in Appendix C. Based on the results of our audit test for the four components and

## **Finding A. Acquisition Planning for Component Breakout**

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our discussions with personnel at DPRO-Westinghouse and the Defense Contract Audit Agency, we believe that all 11 components are viable breakout candidates because Westinghouse added no or limited labor effort to prepare the components for installation into the radar kit.

### **Benefits From Component Breakout**

Component breakout cost reductions of about \$7.7 million could be achieved over the Future Years Defense Program (FYs 1994 through 1999) starting with the FY 1996 production buys of the radar kits (Appendix D) because Westinghouse will add \* percent to the cost of components acquired from component manufacturers. This \* percent markup includes material-related overhead, the cost of money, and profit. The Air Force could reduce costs another \$14.3 million for the breakout of the 11 components to be procured for RSIP radar kits beyond the Future Years Defense Program. Also, our NATO partners could achieve component breakout benefits of about \$23 million for their RSIP radar kits.

### **Conclusion**

The AWACS Program Management Office's decision not to breakout RSIP radar kit components during early production was not supported by a comprehensive component breakout analysis. Accordingly, the Air Force will not achieve component breakout benefits on the E-3 RSIP program until a comprehensive component breakout review is performed as required. Because the RSIP production is not planned until September 1995, the Air Force has sufficient time to identify viable breakout candidates and develop strategies to minimize technical and schedule risks.

### **Recommendations, Management Comments, and Audit Response**

1. We recommend that the Airborne Warning and Control System Program Management Office:

a. Conduct a comprehensive component breakout analysis of Westinghouse radar kits in time to support the E-3 Radar System Improvement Program production decision planned for September 1995.

\*Contractor proprietary data removed.

## **Finding A. Acquisition Planning for Component Breakout**

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**Management Comments.** The Deputy Assistant Secretary of the Air Force (Acquisition) concurred, stating that the Program Management Office began a component breakout analysis in December 1993 that will be completed and used in developing the production acquisition strategy for the planned September 1995 production decision. The complete text of management comments is in Part IV.

**Audit Response.** Management comments were responsive. In response to the final report, we request that the Air Force provide us a copy of the results of the ongoing component breakout evaluation when it is completed.

**b. Breakout components if the breakout review shows that breakout will result in net savings.**

**Management Comments.** The Deputy Assistant Secretary of the Air Force (Acquisition) concurred, stating that the Program Management Office would include the RSIP radar kit components identified in the finding as part of the ongoing component breakout analysis. The Program Management Office will use the results of the component breakout analysis to recommend component breakout candidates during production.

**2. We recommend that the Commander, Electronic Systems Center, provide the Airborne Warning and Control System Program Management Office the resources to plan and manage a component breakout program as required.**

**Management Comments.** The Program Management Office nonconcurrent, stating that the staff at the Electronic Systems Center is involved in approving all portions of the RSIP production acquisition strategy, including assessments of stated Program Management Office resource requirements needed to support a component breakout program. If the Program Management Office indicates that additional resources are required, the staff at the Electronic Systems Center will determine the ability of the Center to support the additional resource requirement.

**Audit Response.** Air Force comments are responsive to the intent of the recommendation.

**Management Comments on the Finding.** In Appendix F, we provide audit responses to specific management comments to the draft report pertaining to the content of the three audit findings.

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## Finding B. Contract Award Fees

The Award Fee Review Board (Review Board) recommended award fee amounts that were not substantiated by Westinghouse's performance on the RSIP contract. In making award fee recommendations, the Review Board did not adequately consider Westinghouse's contract schedule slips and cost growth when applying the contract award fee plan criteria and assigning scores. As a result, the Review Board recommended more than \$1 million in Westinghouse award fee payments that were not warranted.

### Background

**Air Force Award Fee Guidance.** Air Force Systems Command Federal Acquisition Regulation (FAR) Supplement, subpart 16.404-2, "Cost-Plus-Award-Fee Contracts," June 30, 1989, established requirements for developing contract award fee plans. The subpart requires that award fee plans include criteria for measuring each category of evaluated performance, scores ranging from excellent to unsatisfactory for grading performance, and procedures for assessing performance and determining a recommended award fee. Further, the subpart states that fees will not be awarded when overall contractor performance is unsatisfactory.

Air Force Materiel Command FAR Supplement, subpart 5352.216-9002, "Award Fee," July 1, 1992, updated the June 1989 guidance by providing the following definitions for award fee performance evaluations:

- o Excellent - Virtually all required contract tasks exceed the standard by a substantial margin in numerous significant tangible or intangible benefits to the Government.
- o Very Good - Most required contract tasks are uniformly well above the standard and exceed the standard in many significant areas. Although some areas may require improvement, minor deficiencies may be offset by better performance in other areas.
- o Good - Most required contract tasks meet the standard and exceed the standard in several significant areas.
- o Marginal - Most required contract tasks meet the standard. However, when weighing performance, lower-rated tasks offset the good or better ones.
- o Submarginal - Required contract tasks are below standards and performance is inconsistent. Fees should not be awarded when performance is submarginal.



## Finding B. Contract Award Fees

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**Westinghouse Contract Award Fee Terms.** The AWACS Program Management Office included an award fee line item, totaling \$5 million, in the Westinghouse RSIP contract F19628-89-C-0138 to encourage the contractor to maintain schedule and coordinate and resolve interface control issues with Boeing. Contractor performance was to be evaluated over seven evaluation periods. The award fee plan was in a contract attachment. The plan described the criteria to be used in the award fee determination process (Appendix E) and identified the Review Board as the authority for recommending award fee amounts and the Program Executive Officer as the fee-determining official for approving award fee recommendations. The Review Board was to measure Westinghouse's performance in schedule and interface control in determining the amount of award fee to be recommended during each evaluation period. In the area of schedules, Westinghouse's performance was to be measured on its ability to meet or exceed program schedule milestones. In the area of interface control, Westinghouse's performance was to be measured on its ability to effectively anticipate and resolve interface problems with Boeing.

During the first five evaluation periods, the contract permitted the Review Board to recommend as much as \$2.6 million in award fees. For the five evaluation periods, the Review Board recommended that Westinghouse receive award fees totaling \$1,078,600 and the fee-determining official approved award fees totaling \$1,081,600.

### Award Fee Recommendations

During the five award fee evaluation periods, the Review Board recommended award fee amounts that were not substantiated by Westinghouse's performance on the RSIP contract. In making award fee recommendations, the Review Board determined that Westinghouse's contract performance merited an award fee at the same time that Westinghouse was experiencing contract schedule slips and cost growth.

Contract program schedule slips and cost growth occurred because Westinghouse was not meeting program milestones for the radar software development. The program milestone delays caused the AWACS Program Management Office to submit program deviation reports to the Program Executive Officer and to amend the approved acquisition program baseline on August 8, 1991, and again on June 28, 1993. Also, program schedule delays caused the AWACS Program Management Office to reimburse Boeing \$17 million for additional program costs associated with Westinghouse not delivering the radar as required in the Boeing contract schedule. In addition, the Administrative Contracting Officer was applying loss-ratio factors against the Westinghouse progress payment requests because of the software development problems. Despite program schedule and interface control problems, the Review Board determined that Westinghouse qualified for award fee payments when applying the contract award fee plan criteria and assigning scores.

## Finding B. Contract Award Fees

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**Award Fee Criteria.** The Review Board gave Westinghouse performance evaluations of satisfactory or better because the award fee plan did not include rating criteria for unsatisfactory, marginal, and submarginal contractor performance as required by the Air Force Systems Command FAR Supplement.

**Schedule.** During the award fee determination process for the five evaluation periods, documentation from the Review Board's deliberations clearly showed that Westinghouse did not meet program milestones for the radar software development effort. For evaluation period one, the Review Board stated that Westinghouse did not meet the program milestone for the Software Specification Review, citing problems with automated requirements documentation and the traceability software package. Further, the Review Board stated that

Westinghouse has been slow to respond to Government criticism of its current software development effort. The Government's concern has centered upon: (1) incompletely thought through software development methodologies, (2) lack of detailed traceability of requirements, (3) insufficiently detailed assumptions for timing and sizing estimates, and (4) tardiness in initiating software prototyping activities.

Westinghouse's inability to meet radar software schedule milestones persisted through award fee evaluation period five. The Review Board stated that Westinghouse has continued to have problems meeting program schedules in software development and integration. At the December 1992, January 1993, and March 1993 Program Management Reviews, Westinghouse determined that software coding and integration rates were not meeting projected goals. Further, the Review Board stated that Westinghouse missed all six software demonstration program milestones for this evaluation period.

The Review Board recognized the inadequacy of the award fee plan criteria. In documentation for evaluation period four, the Review Board stated that it "was forced to evaluate Westinghouse's performance in the area of schedule as satisfactory. Schedule performance did not meet contract milestones nor criteria set forth in the plan for this rating, but there is not a lower rating available."

**Interface Control.** The Review Board's deliberations showed that Westinghouse did not effectively interface with Boeing during award fee evaluation periods three and five.

For evaluation period three, the Review Board incorrectly rated Westinghouse's performance for interface control as "good." A "good" rating meant that the Review Board determined that Westinghouse exceeded requirements in all critical areas of the program, answered action items ahead of schedule, and addressed major problems identified by others. However, the Review Board's findings did not support a "good" rating. The Review Board found that Westinghouse waited until the very last moment to coordinate interface control issues with Boeing. One issue involved Westinghouse replacing carpet under the P-91 cabinet housing the radar maintenance control panel. The Review

## Finding B. Contract Award Fees

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Board believed this issue should have been resolved directly with Boeing before the Critical Design Review. Also, the Review Board noted that Westinghouse had failed to respond to Preliminary Design Review action items.

Similarly, the Review Board incorrectly rated Westinghouse's performance for interface control as "good" for evaluation period five. Review Board documentation showed that Westinghouse did not exceed interface control requirements pertaining to Boeing's Avionics Integration Laboratory integration and checkout. The Review Board found that Westinghouse's:

- o contractor data requirement list 166 had numerous errors, was missing data, and contained incomplete or incorrect test procedures when submitted to Boeing;

- o numerous updates forced Boeing to revise its internal integration and checkout procedures for its Avionics Integration Laboratory;

- o drawings and part numbers did not match equipment deliveries to Boeing; and

- o removal of computer boards affected Boeing's Avionics Integration Laboratory integration and checkout.

Accordingly, the Review Board's application of the award fee plan criteria resulted in award fee recommendations even though Westinghouse's performance did not meet or exceed minimum requirements in program schedule and radar interface control with Boeing.

**Award Fee Scoring.** In the Westinghouse contract award fee plan, the AWACS Program Management Office did not establish firm procedures for assigning scores to determine performance ratings. As a result, Review Board procedures for assigning scores to determine Westinghouse performance ratings evolved from award fee evaluation period one through evaluation period five. For each succeeding evaluation period, the Review Board used more disciplined methods in determining scores. However, the Review Board's methods for scoring and assigning Westinghouse performance ratings were not consistent with performance criteria in the contract award fee plan.

**Scoring Methods.** For evaluation periods one and two, the Review Board discussed the two performance categories of program schedule and interface control in their totality and assigned percentage scores to the results. For evaluation periods three and four, the Review Board subdivided the two performance categories and applied an average percentage score to the maximum award fee amount. For evaluation period five, the Review Board further subdivided the scoring for the two performance categories.

**Combined Scores.** The contract award fee plan required that Westinghouse meet all program milestones and minimum interface control requirements on the critical path established in the award fee plan to obtain satisfactory ratings. However, the Review Board's methodology used for evaluation period five resulted in Westinghouse's receiving satisfactory ratings

## Finding B. Contract Award Fees

even though Westinghouse did not meet program schedule milestones and minimum interface control requirements. This condition occurred because the Review Board added scores for program schedule milestones and minimum interface control requirements that were not in the award fee plan's critical path to determine the award fee performance rating. The Review Board's scoring for the category of program schedule is in the table.

**Award Fee Review Board Recommendation  
Schedule Scoring Table**

	Critical Path	Value to Program 1-5	Performance 0-5	Score
Contractual Milestones				
Test Set-3 Integration & Checkout	Yes	5	0	0
Surveillance Radar Control Demo 4	Yes	5	0	0
Draft Technical Orders	No	3	1	3
Updating Contract Milestones	Yes	5	0	0
Program Milestones				
Hardware	No	4	4	16
Software	Yes	5	0	0
Subcontractor	No	3	4	12
Providing Realistic Schedules	N/A	5	1	5
Workarounds	N/A	5	2	10
Data	No	4	2	8
Total Score				<u>54</u>
Total Possible				220
Percentage				24.5

The 24.5 percent score equated to a "satisfactory" program schedule performance rating. As a result, Westinghouse received an award fee of \$98,000, even though Westinghouse's performance did not meet program schedule milestones on the critical path established in the award fee plan.

**Amendment to Award Fee Plan.** On March 22, 1993, the AWACS Program Management Office amended the Westinghouse award fee plan in accordance with Air Force Materiel Command FAR Supplement 5352.216-9002, effective with the sixth award fee evaluation period. The amendment eliminated the "satisfactory" performance rating and added "marginal" and "submarginal" performance ratings.

## Conclusion

The AWACS Program Management Office had not fully implemented the requirements of Air Force Systems Command FAR Supplement, subpart 16.404-2, for effectively developing and implementing contract award fee plans. As a result, the Review Board recommended more than \$1 million in Westinghouse award fee payments that were not warranted.

## Recommendations, Management Comments, and Audit Response

**We recommend that the Radar System Improvement Program Award Fee Review Board, Air Force Electronic Systems Center:**

**1. Establish a scoring methodology that is consistent with contract F19628-89-C-0138 award fee plan performance criteria.**

**Management Comments.** The Deputy Assistant Secretary of the Air Force (Acquisition) concurred, stating that the Program Management Office was taking steps to effect a bilateral contract change to revise the award fee plan performance criteria. The award fee plan revisions will include deleting the objective schedule and radar performance criteria and adding subjective criteria such as contractor management's cooperation with its associate contractor and efforts to minimize overall costs. The Air Force believes that the new subjective criteria are more appropriate factors for determining the amount of the contractor's award fee. Full text of management comments is in Part IV.

**Audit Response.** Planned Air Force actions satisfy the intent of the audit recommendation.

**2. Determine and justify award fee recommendations for evaluation period seven for contract F19628-89-C-0138 in accordance with the award fee plan performance criteria and the revised scoring methodology.**

**Management Comments.** The Deputy Assistant Secretary of the Air Force (Acquisition) concurred, stating that the RSIP Award Fee Review Board would determine and justify award fee recommendations for evaluation period seven for contract F19628-89-C-0138 in accordance with the revised subjective award fee plan criteria and a new scoring methodology. The Air Force stated that it was not possible to implement the recommendation for award fee evaluation period six as recommended in the draft report because the award fee process was completed for period six in late September 1993.

**Audit Response.** Management comments were responsive to the intent of the recommendation. In the final report, we deleted reference to award fee evaluation period six based on managements comments.

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## Finding C. Property Management

Although the contract contained special provisions for title to property, the Defense Plant Representative Office-Westinghouse was excluding property acquired through progress payments on the E-3 RSIP contract from its review of Westinghouse's property control system. DPRO officials believed that the FAR, part 45, "Government Property," exempted all property acquired through contract progress payments from the DPRO's review of Westinghouse's property control system. As a result, about \$10 million of property acquired through progress payments may not be transferred to the Government at the completion of the Westinghouse contract.

### Background

**Federal Acquisition Regulation.** FAR, subpart 32.503-14, "Protection of Government Title," provides that the progress payment clause gives the Government title to all property that the contractor acquires, under terms of a contract, for which progress payments were made. Government contract policy requires contractors to account for and maintain the Government's official records of Government property in their possession. To ensure that contractors comply with contract property clauses, FAR, subpart 45.104, "Review and Correction of Contractor's Property Control Systems," requires the Agency responsible for contract administration at a contractor's plant to review and approve the contractor's property control system. However, the FAR, part 45, exempted property to which the Government acquired a lien or title solely because progress payments were made from being subject to Government property administration provisions in FAR, subpart 45.104.

**DoD Guidance.** DoD Manual 4161.2-M, "Performance of Contract Property Administration," December 1991, established DoD policies and procedures for implementing contract property administration requirements in the FAR. The Manual stated that the FAR, part 45, exempted inventory for which progress payments were made from property control requirements in FAR, part 45. Instead, the Manual stated that the contract progress payment clause established property control requirements pertaining to this inventory. The Manual further stated that special property reviews of this inventory would be made if requested by the contracting officer.

**Contract Terms.** The Westinghouse RSIP contract F19628-89-C-0138 included FAR clause 52.245-2, "Government Property (Fixed-Price Contracts)," by reference. In addition, the Air Force amplified on the standard Government property clause in the "Special Contract Requirements" section of the contract: "Upon completion of this contract, or at that point in time when property is no longer required in performance of the contract, title to such property shall vest in the Government; and all residual items shall be deliverable to the Government."

On contracts authorizing progress payments that do not include special property contract requirements, the FAR provides for the contractor to hold title to all excess property that remains after contract performance is completed and all contractor obligations under the contract are satisfied, including full liquidation of progress payments. Because of the anticipated extent and value of RSIP residual property and its need for kit production and software maintenance, the Air Force added the special contract property requirement to ensure that the residual RSIP property was transferred to the Government at contract completion. Accordingly, the Government was not acquiring a lien to contractor property solely because progress payments were being made to Westinghouse.

Westinghouse's contract proposal estimated that property for which progress payments would be made could total as much as \$33 million, of which property valued at \$10 million would not be consumed or delivered as a contract line item at the completion of the RSIP contract. Property to be acquired included automated data processing equipment, prototype components, spares, video teleconferencing equipment, and test equipment.

### Property Administration

The DPRO-Westinghouse was excluding property acquired through progress payments on the E-3 RSIP contract from its review of Westinghouse's property control system. DPRO officials believed that the FAR, as stated in DoD Manual 4161.2-M, exempted all property acquired through contract progress payments from the DPRO's review of Westinghouse's property control system. This belief was not correct. Government property administration provisions in FAR, subpart 45.104, were applicable because the Government was not acquiring a lien or title to contractor property solely because progress payments were being made to Westinghouse.

Property administration requirements in DoD Manual 4161.2-M caused the DPRO's confusion. The Manual exempted all inventory for which progress payments were made from property control requirements in FAR, part 45, regardless of whether the Government was acquiring title to contractor property for purposes other than that progress payments were being made to the contractor.

### Transfer of Property at Contract Completion

DPRO-Westinghouse excluded property acquired through progress payments on the E-3 RSIP contract from its review of Westinghouse's property control system. As a result, all residual property, costing as much as \$10 million, may not be transferred to the Government at contract completion.

## Finding C. Property Management

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After our discussions with the Defense Contract Management Command, DPRO-Westinghouse initiated a non-statistical test of property acquired through progress payments on the Westinghouse RSIP contract. The DPRO review did not disclose any discrepancies with Westinghouse's accountability and record-keeping for property acquired through progress payments on the RSIP contract.

## Recommendations, Management Comments, and Audit Response

1. We recommend that the Under Secretary of Defense for Acquisition and Technology clarify DoD Manual 4161.2-M, "Performance of Contract Property Administration," to include property acquired through progress payments in the contractor property control system reviews when the Government acquired title not solely because progress payments were made.

**Management Comments.** The Office of the Assistant Secretary of Defense (Economic Security) nonconcurred, stating that progress payment inventory is specifically excluded from FAR, part 45, property management requirements. Therefore, the Office of the Assistant Secretary concluded that the DoD Manual 4161.2-M correctly states that progress payment inventory is exempt from FAR, part 45, requirements and that the property administrators involvement is limited to supporting requests for assistance from the contracting officer.

Also, the Office of the Assistant Secretary stated that since the draft report incorrectly referred to contractor progress payment inventory as contractor-acquired property, the report contains inaccurate and misleading findings and recommendations. Full text of management comments is in Part IV.

**Audit Response.** The Office of the Assistant Secretary of Defense (Economic Security) did not address the requirement in FAR, subpart 45.000, that states that progress payment property is only exempted from Government property administration provisions in FAR, subpart 45.104, if the Government acquires a lien or title solely because progress payments were made. The Government did not acquire a lien to E-3 RSIP contract property acquired through progress payments solely because progress payments were made. As the report stated, the Air Force added a special contract requirement to state specifically that title to property acquired through progress payments will be vested with the Government when the contractor no longer required the property in performance of the contract. This special contract requirement was necessary because normally the contractor holds title to property acquired through progress payments on contracts after contract performance is completed. As written, DoD Manual 4161.2-M does not address the FAR, subpart 45.000, exception that contractor progress payment property is subject to Government property administration provisions in FAR, subpart 45.104, if the Government does not acquire a lien or title solely because progress payments were made.



## Finding C. Property Management

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Accordingly, DoD Manual 4161.2-M needs to be clarified to ensure that Government contract property administrators do include property acquired through progress payments as part of the contractor property control system reviews when the Government does acquire a lien or title to the property not solely because progress payments were made. In finalizing this report, we revised the draft report term "contractor-acquired property" to "contract property acquired through progress payments" in the body of the finding and the recommendations to address concerns stated in the management comments. Therefore, we request that the Under Secretary of Defense for Acquisition and Technology reconsider his position in response to the final report.

**2. We recommend that the Defense Plant Representative Office-Westinghouse include property acquired through progress payments on contract F19628-89-C-0138 as part of future Westinghouse property control system reviews in accordance with Government property administration provisions in Federal Acquisition Regulation, part 45, "Government Property."**

**Management Comments.** The Principal Deputy Director, Defense Logistics Agency, nonconcurred, stating that the FAR, part 45, states that progress payment inventory is excluded from the normal property control system reviews because the Government does not have title to progress payment inventory. He stated that property acquired through progress payments was monitored under the provisions of the Material Management and Accounting System. He stated that the DPRO-Westinghouse property administrator participated in the Material Management and Accounting System evaluations as scheduled by the contracting officer. He further stated that the DPRO-Westinghouse property administrator does perform special reviews of Westinghouse progress payment inventory as requested by the contracting officer in accordance with provisions in DoD Manual 4161.2-M. He stated that the DPRO-Westinghouse property administrator has performed a special property review of Westinghouse progress payment inventory at the request of the contracting officer. The review showed that Westinghouse was in full compliance with contract property control requirements. The complete text of management comments is in Part IV.

**Audit Response.** We disagree with management's position that the property acquired through progress payments on contract F19628-89-C-0138 was not subject to the FAR, part 45, contract property administration requirements for the reasons in the audit response to management comments for Recommendation C.1.

During the audit, we did review DPRO-Westinghouse's involvement in the Westinghouse Material Management Accounting System evaluations. Contrary to management comments, property acquired through progress payments on fixed-priced contracts, including the E-3 RSIP fixed-priced contract, were not tested by the DPRO-Westinghouse property administrator when the evaluations were performed. In addition, the special progress payment inventory review requested by the contracting officer was initiated based on our discussions with the Westinghouse property administrator and the contracting officer. This being the case, we concluded that Westinghouse property acquired through progress

## **Finding C. Property Management**

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payments on fixed-price contracts was not routinely subjected to contract property administration reviews. Therefore, we request that the Principal Deputy Director, Defense Logistics Agency, reconsider his position on Recommendation C.2. in response to the final report.

## **Part III - Additional Information**

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## Appendix A. Areas Not Requiring Further Review

At the completion of the audit survey, we determined that additional audit work was not warranted for the following program management elements.

**Reliability and Maintainability.** Boeing and Westinghouse were verifying that RSIP reliability and maintainability requirements were achieved by laboratory demonstrations, testing, and environmental stress screening. For demonstrating RSIP reliability and maintainability, the AWACS Program Management Office has approved the contractors' system test plans for testing and integrating the RSIP radar into the E-3 AWACS aircraft.

**Configuration Management.** Westinghouse was adhering to configuration management procedures required in DoD Instruction 5000.2 that were incorporated in Westinghouse's RSIP contract.

**Weapon System Integration.** The AWACS Program Management Office was adequately managing weapon system integration despite user system interface problems. An Interface Control Working Group was established and is actively involved in resolving RSIP integration problems. Boeing, as total system integrator, is responsible for ensuring that the RSIP, as installed on the E-3 AWACS aircraft, meets Air Force performance requirements.

**Scheduling.** Westinghouse has experienced schedule delays in developing the RSIP radar kit software development. As a direct result, Boeing was delayed in its ability to meet its contractual delivery schedule requirements and requested relief from the Air Force by submitting a request for equitable contract price adjustment. Although the RSIP is behind schedule, the AWACS Program Management Office and Westinghouse have initiated appropriate actions to compress the time loss.

**Program Stability.** The AWACS Program Management Office submitted program deviation reports to the Air Acquisition Executive as required by DoD Instruction 5000.2, part 11, section A, "Program Objectives and Baselines." In May 1991, a program deviation report was submitted because of the Westinghouse schedule delay in the radar kit software development effort and the resulting program extended in the RSIP acquisition plan. In February 1993, another program deviation report was submitted because of continued delays in the radar kit software development effort and a 2-year slip in the start of RSIP production because of program funding cuts in the FY 1994 President's Budget.

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## **Appendix B. Other Matters of Interest**

During the audit, we identified four areas of concern pertaining to testing, cost estimating and analysis, and contracting.

### **Testing**

DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991, requires that an approved Operational Requirements Document and a Test and Evaluation Master Plan be submitted in support of all program milestone reviews beginning with Milestone I, Concept Demonstration Approval. As of March 1994, the Air Force was finalizing those documents. In May 1994, the AWACS Program Management Office expects the Commander, Air Combat Command, to sign the draft RSIP Operational Requirements Document and the Office of the Secretary of Defense to sign the draft Test and Evaluation Master Plan.

### **Cost Estimating and Analysis**

DoD Instruction 5000.2 requires the Military Department's independent cost organization to prepare an independent cost estimate in support of all program milestone reviews beginning with Milestone I, Concept Demonstration Approval. An independent cost estimate was not requested and prepared by the Air Force Cost Analysis Improvement Group in support of the RSIP Milestone II, Development Approval, decision in December 1988. The AWACS Program Management Office stated that an independent cost estimate would be requested from the Air Force Cost Analysis Improvement Group review in support of Milestone III, the RSIP production decision planned for September 1995. Continued management oversight is necessary to ensure that the independent cost estimate is performed as required before Milestone III.

### **Contracting**

**Westinghouse Requests for Equitable Adjustment.** FAR, part 30, "Cost Accounting Standards," requires contractors to separately account for costs of any work project not contractually authorized from the costs of authorized work projects. Westinghouse's RSIP contract included this FAR requirement in the Change Order Accounting clause.

## Appendix B. Other Matters of Interest

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From December 1992 through June 1993, Westinghouse submitted certified requests for equitable adjustment totaling \$53 million for Government-caused cost increases and schedule slippages. However, Westinghouse did not separately account for costs associated with the requests for equitable adjustment as required by the contract Change Order Accounting clause. Westinghouse did not segregate the costs. Therefore, the AWACS Program Management Office advised that it would determine the merit of Westinghouse's claims and negotiate any costs due to Westinghouse. Continued management oversight is necessary to ensure the timely resolution of Westinghouse's claim for reimbursement for any Government-caused cost increases and schedule slippages.

**Progress Payments.** FAR, subpart 32-503-6, requires the contracting officer to compute a loss ratio factor and adjust future progress payment requests to exclude the amount of potential loss when the total costs to complete the performance exceed the contract price. The FAR requires the contracting officer to document in the contract file the basis for the loss ratio factor applied against contractor progress payment requests. In our review of loss ratio factors applied against Westinghouse progress payment requests, the DPRO-Westinghouse had not adequately documented the method for determining the loss ratio factor. However, contracting personnel reconstructed available records that demonstrated the appropriate loss ratio factor was being applied against Westinghouse progress payment requests. During our audit, DPRO-Westinghouse initiated action to ensure that the basis for loss ratio factors being applied against contractor progress payment requests was properly documented in contract files.

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## **Appendix C. Candidates for Component Breakout**

We determined that the four radar set components we reviewed in detail were suitable candidates for component breakout. Details on how we reached our conclusions for each component follow.

### **Radar Data Processor**

Computing Devices International manufactures the radar data processor (RDP), the central processor for the radar kit. Although the RDP is being developed exclusively for the RSIP radar kit, the contractor built a similar processor for the F/A-18 aircraft. On the F/A-18 aircraft contract, the Government provided McDonnell Aircraft Company the RDP as Government-furnished equipment.

The RDP design is stable and the hardware is reliable. For the RSIP contract, the contractor has delivered three bench units and six prototypes to Westinghouse that were free of defects. The delivered RDPs met or exceeded all design requirements. The contractor does not anticipate making design changes. Similarly, DPRO-Westinghouse personnel believe that the design is stable and will not be altered by Westinghouse.

Normally, a Government quality assurance representative attends acceptance testing of the units at the contractor's plant before the units are forwarded to Westinghouse. At Westinghouse, no additional design or engineering effort is added to the RDP. Westinghouse examines and tests the component before installation in the radar kit. Westinghouse planning documents show that Westinghouse applies 13 minutes of labor to install the RDP in the radar kit.

The contractor warrants the RDPs for 18 months after the completion of acceptance testing. In our discussions, Government quality assurance representatives stated that the RDP was reliable and a good breakout candidate.

### **Radar Data Control Unit**

Ball Corporation manufactures the radar data control unit (RDCU), which processes the radar operator's instructions and displays the results on radar monitors. The RDCUs are modified off-the-shelf processors used on the Army's M1A2 tank. Westinghouse cannot make design changes to the unit because the design is proprietary to Ball Corporation.

## **Appendix C. Candidates for Component Breakout**

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The RDCU design is stable and the hardware is reliable. For the RSIP contract, the contractor has delivered 15 units to Westinghouse. The RDCUs have been highly reliable since the contractor retrofitted the high voltage power supplies to correct earlier failures.

At Westinghouse, no additional design or engineering effort is added to the RDCU. Westinghouse examines and tests the component before installation in the radar kit. The contractor warrants the RDCUs for 12 months after the completion of acceptance testing. In our discussions, Government quality assurance representatives stated that the RDCU was reliable and a good breakout candidate.

### **Backplane Assembly**

Teradyne Connections Systems manufactures the backplane assembly, which houses the electrical circuits for the radar kit. The contractor is the industry leader in backplane designs. The backplane assembly design is unique to the RSIP radar kit and is considered state-of-the-art.

The backplane assembly design is stable and the hardware is reliable. The contractor has delivered two solid-state backplane assemblies to Westinghouse. The delivered backplane assemblies have met military specifications during source acceptance testing. Contractor personnel stated that the design of the backplane is stable, subject to Westinghouse making circuit changes when RSIP operational testing occurs. Air Force operational testing will be completed before the RSIP full-rate production and deployment decision.

At Westinghouse, no additional design or engineering effort is added to the backplane assembly. The contractor warrants the backplane assemblies for 12 months after the completion of acceptance testing. In our discussions, Government quality assurance representatives stated that the backplane assembly was reliable and a good breakout candidate.

### **Spectrum Analyzer**

Hewlett-Packard Company manufactures the spectrum analyzer, which processes signals received from the auxiliary or main receiver. The spectrum analyzer is a non-developmental item with a stable and reliable design. At Westinghouse, no additional design or engineering effort is added to the spectrum analyzer.



## Appendix D. Potential Component Breakout Saving

<u>Component</u>	<u>Westinghouse's Cost</u>	<u>Westinghouse's Price<sup>1</sup></u>	<u>Difference</u>	<u>Cost Avoidance Potential</u>
Radar Data Processor	\$ *	\$ *	\$ *	
Radar Data Control Unit <sup>2</sup>	*	*	*	
Backplane Assembly	*	*	*	
Spectrum Analyzer	*	*	*	
28V Power Supply	*	*	*	
Power Supply	*	*	*	
Keyboard/Cursor	*	*	*	
Frequency Synthesizer	*	*	*	
Chassis Assembly	*	*	*	
Keyboard/Track	*	*	*	
Backplane Kits	<u>*</u>	<u>*</u>	<u>*</u>	
Subtotal	<u>\$ *</u>	<u>\$ *</u>	<u>\$ *</u>	
Future Years Defense Program production kits Total				<u>x 11</u> <u>\$7,693,290<sup>3</sup></u>

<sup>1</sup> \* percent markup on cost represents the contractor's overhead, cost of money, and profits.

<sup>2</sup> Two Radar Data Control Units are required per aircraft for a total price of \$ \* (\$ \* x 2) per aircraft.

<sup>3</sup> In addition, the United States could realize component breakout savings of about \$14.7 million for 21 RSIP kits in the out-years and our NATO partners could realize component breakout savings of about \$23.1 million for 33 RSIP kits.

\*Contractor proprietary data removed.

## Appendix E. Westinghouse Award Fee Criteria

### Schedule

<u>Rating</u>	<u>Scoring</u> (Percent)	<u>Criteria</u>
Excellent	91-100	Contractor performance clearly exceeds the minimum requirements in all areas by a substantial margin. All milestones and deliverables are ahead of schedule, such that the net result is that the Contractor is 60 days or more ahead of schedule.
Very Good	71-90	Contractor performance exceeds the minimum requirements in all areas. All milestones and deliverables are on or ahead of schedule, such that the net result is that the Contractor is 30 days or more ahead of schedule.
Good	41-70	Contractor performance exceeds the minimum requirements in all critical areas of the program. All milestones and deliverables on the critical path are on or ahead of schedule, such that the net result is that the Contractor is 15 days or more ahead of schedule.
Satisfactory	0-40	Contractor performance meets the minimum requirements in all critical areas of the program and exceeds requirements in some areas. All milestones and deliverables on the critical path are on schedule.

### Interface Control

Excellent	91-100	Contractor performance clearly exceeds the minimum requirements in all areas by a substantial margin. Provides full engineering and management support to Interface Control Working Groups; exceptionally well-prepared to discuss issues; provides early, detailed answers to action items; offers support in solving Associate Contractor questions/problems; actively seeks out, identifies, and successfully addresses both major and minor problems; proposes cost-effective solutions to problems.
Very Good	71-90	Contractor performance exceeds the minimum requirements in all areas. Provides full engineering support to Interface Control Working Groups; provides early, detailed answers to action items; offers support in solving Associate Contractor questions/problems; actively seeks out, identifies, and addresses both major and minor problems with little follow-up required by Government.
Good	41-70	Contractor performance exceeds the minimum requirements in all critical areas of the program. Provides engineering support to Interface Control Working Groups, answers action items ahead of schedule, answers all Associate Contractor questions, identifies and addresses minor problems, addresses major problems identified by others.

<u>Rating</u>	<u>Scoring</u> (Percent)	<u>Criteria</u>
Satisfactory	0-40	Contractor performance meets the minimum requirements in all critical areas of the program and exceeds requirements in some areas. Attends Interface Control Working Groups, responds to action items on schedule, answers most Associate Contractor questions, addresses interface problems identified by others.

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## **Appendix F. Audit Response to Specific Management Comments**

Audit responses to specific management comments to the draft report from the Deputy Assistant Secretary of the Air Force (Acquisition) follow.

### **Finding A. Acquisition Planning for Component Breakout**

**Management Comments.** The Air Force stated that the AWACS Program Management Office did conduct a component breakout analysis in preparation for the RSIP engineering and manufacturing program decision in 1989. The Air Force added that the results of the analysis were documented in the June 1989 RSIP Acquisition Strategy Report. The Report stated that production schedule constraints made conditions unfavorable for component breakout early in production.

**Audit Response.** In the finding, we did discuss the June 1989 Acquisition Strategy Report and its statements made on the feasibility of implementing a component breakout program. However, a documented comprehensive component breakout review was not performed to support the Acquisition Strategy Report statements. Accordingly, the AWACS Program Management Office had not previously made and documented a RSIP component breakout review in compliance with DFARS, Appendix D, requirements.

**Management Comments.** The Air Force referred to the RSIP full-rate production decision planned for September 1995 as the RSIP low-rate initial production decision.

**Audit Response.** Based on the successful completion of initial operational test and evaluation to be conducted before September 1995, the Air Force will, in effect, start full-rate production of RSIP kits. Production kits will be installed in operational aircraft. They will not be used for further initial operational test and evaluation. Due to budgetary constraints, kit procurements for the Air Force will be at a low rate. However, combined annual Air Force and NATO partner procurements will be at the Program Management Office's stated full-rate production rate. Nevertheless, we revised the report to refer to the September 1995 program review as the production decision instead of the full-rate production decision in view of management comments.

## Finding B. Contract Award Fees

**Management Comments.** The Deputy Assistant Secretary of the Air Force (Acquisition) stated that the intent of the RSIP award fee program was to provide a subjective method for the Fee Determination Official to recognize contractor performance during the award fee period and to stimulate improved performance in upcoming periods. Based on this intent, the Air Force stated that the finding should be changed to state that the Fee Determination Official authorized Westinghouse award fees that were substantiated by the Fee Determination Official's subjective determination of Westinghouse's performance on the RSIP contract.

**Audit Response.** The issue raised in the report was not that the Fee Determination Official did not have the authority to make a subjective determination of Westinghouse's performance on the RSIP contract. The issue is that the Award Fee Review Board recommended that the Fee Determination Official authorize more than \$1 million in Westinghouse award fee payments that were not warranted based on the established objective performance criteria in the contract award fee plan.

## Appendix G. Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
A.1.a.	Compliance with Regulation and Economy and Efficiency. Will allow the Airborne Warning and Control System Program Management Office to identify all radar kit components eligible for component breakout.	Funds Put to Better Use. Air Force could reduce costs by as much as \$7.7 million over the Future Years Defense Program. (FYs 1994 through 1999 Aircraft Procurement, Air Force.)
A.1.b.	Compliance with Regulation and Economy and Efficiency. Will ensure that the Airborne Warning and Control System Program Management Office uses the results of the component breakout review for FY 1996 radar kit full-rate production buys.	See A.1.a.
A.2.	Compliance with Regulation. Will ensure that the E-3 Radar System Improvement Program component breakout review is performed as required.	Nonmonetary.
B.1.	Economy and Efficiency. Will ensure that the Award Fee Review Board for the Radar System Improvement Program determines the recommended amount of award fee in accordance with performance criteria in the contract award fee plan.	Unquantifiable because the amount of award fee to be recommended for evaluation period seven has yet to be determined.

## Appendix G. Summary of Potential Benefits Resulting From Audit

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Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
B.2.	Economy and Efficiency. Will ensure that the Award Fee Review Board for the Radar System Improvement Program determines and justifies Westinghouse award fee recommendations in accordance with contract terms.	See B.1.
C.1.	Compliance with Regulation. Will ensure that contract property administration requirements in DoD Manual 4161.2-M are consistent with requirements in the Federal Acquisition Regulation.	Nonmonetary.
C.2.	Internal Control and Compliance with Regulation. Will ensure that the Defense Plant Representative Office-Westinghouse complies with contract property administration requirements in the Federal Acquisition Regulation.	Nonmonetary.

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## **Appendix H. Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Assistant Secretary of Defense (Command, Control, Communications and Intelligence),  
Washington, DC

### **Department of the Air Force**

Assistant Secretary of the Air Force (Acquisition), Washington, DC  
Assistant Secretary of the Air Force (Financial Management and Comptroller),  
Washington, DC  
Headquarters, Air Combat Command, Langley Air Force Base, VA  
Office of the Program Executive Officer, Command Communication and Control,  
Washington, DC  
Air Force Cost Analysis Agency, Washington, DC  
Airborne Warning and Control System Program Management Office, Electronic  
Systems Center, Hanscom Air Force Base, MA  
552 Air Control Wing, Tinker Air Force Base, OK  
Air Force Audit Agency, Wright-Patterson Air Force Base, OH

### **Other Defense Organizations**

Defense Logistics Agency Offices  
Headquarters, Alexandria, VA  
Defense Contract Management Command, Alexandria, VA  
Defense Contract Management Area Operations-Boston, Boston, MA  
Defense Contract Management Area Operations-Denver, Inglewood, CO  
Defense Contract Management Area Operations-Twin Cities, Bloomington, MN  
Defense Plant Representative Office-Boeing, Seattle, WA  
Defense Plant Representative Office-Westinghouse, Baltimore, MD  
Defense Automation Resources Information Center, Alexandria, VA  
Defense Contract Audit Agency, Baltimore, MD

### **Other Defense Organizations**

Defense Commercial Communications Office, Scott Air Force Base, IL

### **Other Government Organizations**

U. S. General Accounting Office, Washington D.C.

## Appendix H. Organizations Visited or Contacted

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### Contractors

Ball Aerospace, Broomfield, CO  
Boeing Aerospace Company, Seattle, WA  
Computing Devices International, Bloomington, MN  
Mitre Corporation, Lexington, MA  
Teradyne Connections Systems, Nashua, NH  
Westinghouse Electric Corporation, Baltimore, MD



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## **Appendix I. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology  
Assistant Secretary of Defense (Command, Control, Communications and Intelligence)  
Assistant Secretary of Defense (Economic Security)  
Assistant to the Secretary of Defense for Public Affairs  
Comptroller of the Department of Defense

### **Department of the Air Force**

Secretary of the Air Force  
Assistant Secretary of the Air Force (Acquisition)  
Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Commander, Electronic Systems Center, Air Force Materiel Command  
Airborne Warning and Control System Program Management Office, Electronic  
Systems Center  
Air Force Audit Agency

### **Other Defense Organizations**

Defense Logistics Agency  
Defense Logistics Studies Information Exchange  
National Security Agency

### **Non-Defense Organizations**

Office of Management and Budget  
U.S. General Accounting Office, National Security and International Affairs Division,  
Technical Information Center  
Chairman and Ranking Minority Member of the following Congressional Committees  
and Subcommittees:  
Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Operations  
House Subcommittee on Legislation and National Security, Committee on  
Government Operations

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## **Part IV - Management Comments**

# Office of the Assistant Secretary of Defense (Economic Security) Comments

Final Report  
Reference



ECONOMIC SECURITY

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE  
3300 DEFENSE PENTAGON  
WASHINGTON DC 20301-3300



13 JAN 1994

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING, OFFICE  
OF THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

*CALL Rev 14 Jan 94*  
SUBJECT: Property Management Portions of Draft Audit Report on  
The Acquisition of the E-3 Airborne Warning and Controls  
System's Radar System Improvement Program, (Project  
No. 3AS-0020)

Thank you for the opportunity to review the subject draft audit report, dated November 22, 1993. Our review and comments are limited to the Property Management portions of the draft audit report (Findings/Recommendations C. of Part II, and related areas). We cannot concur with these portions of the report, because of their inaccurate and misleading findings that lead to inappropriate recommendations. Furthermore, we do not concur with the release of this draft report as a final report.

Before providing specific comments, I wish to note that the offices responsible for contract property management and contract administration within the Office of the Under Secretary of Defense (Acquisition and Technology) were not visited nor contacted by the auditors during this review (Appendix G, of draft report).

The report incorrectly uses the following terms interchangeably: Government Property, contractor-acquired property and progress payments inventory. This misuse of terms leads to the misquoting/misinterpreting of the Federal Acquisition Regulation (FAR) and DoD Manual 4161.2-M. Specifically, FAR Parts 45, Government Property and 52.232-16, Progress Payments and the DoD Manual for the Performance of Contract Property Administration, DoD 4161.2-M are misinterpreted within this draft report, resulting in inaccurate and misleading findings and recommendations.

Simply put, property is either Government Property or Progress Payments Inventory -- it cannot be both at the same time. FAR Part 45 defines Government Property as either government-furnished property or contractor-acquired property. FAR Part 45 excludes progress payments inventory from its provisions. Progress payments inventory is not contractor-acquired property, as defined in FAR 45-101 (a). Therefore, all references within this draft report to contractor-acquired property are misleading and inaccurate.

Report  
revised.

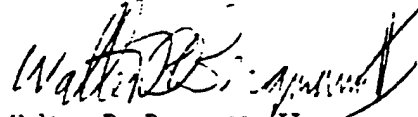
We specifically nonconcur with the intent of your two Government Property recommendations:

1. To clarify DoD 4161.2-M to include progress payments inventory within contractor property control systems reviews.
  - The DoD Contract Property Administration Manual is consistent with and in compliance with the Federal Acquisition Regulation.
2. To require the Defense Plant Representative Office - Westinghouse to include progress payments inventory on contract F19628-89-C-0138 as part of future Westinghouse property control system reviews in accordance with Part 45 of the Federal Acquisition Regulation.
  - Since FAR Part 45 does not apply to property acquired with progress payments, the FAR 45.502 (a) requirement to review contractor's property control system does not apply.

More detailed comments on this report's property findings and recommendations are included in the attachment.

We recommend that all Property Management findings, recommendations and related references be removed from this draft report and that it not be issued as a final report because, in its present state, it is of no use to management and would present misleading and inaccurate information to the Congress and the general public.

Our action officer for government-owned contract property policy and management is Mr. James H. Kordes, 697-4186. He is available to discuss these comments with you in more detail.

  
Walter B. Bergmann, II  
Acting Deputy Assistant Secretary  
(Production Resources)

Attachment

## Office of the Assistant Secretary of Defense (Economic Security) Comments

Final Report  
Reference

DoD Inspector General Draft Report 3AS-0020 November 22, 1993

Property Management Portions of Draft Audit Report on The  
Acquisition of the E-3 Airborne Warning and Controls  
System's Radar System Improvement Program

DEPARTMENT OF DEFENSE COMMENTS

\*\*\*\*\*

The Findings and Recommendations offered by the DoDIG in the above draft report, relating to Property Management, and the Office of the Assistant Secretary of Defense (Economic Security) responses follow:

Finding C: Property Management - "Defense Plant Representative Office - Westinghouse was excluding contractor-acquired property purchased on the E-3 RSIP contract from its review of Westinghouse's property control system. DPRO officials believed that the FAR Part 45, "Government Property," exempted all contractor-acquired property purchased through contract progress payments from the DPRO's review of Westinghouse's property control system. As a result, about \$10 million of contractor-acquired property may not be transferred to the Government at the completion of the Westinghouse contract."

DoD Comment: Nonconcur. As stated in the cover memorandum, this draft report incorrectly uses contractor-acquired property in lieu of progress payments inventory. Progress payments inventory is specifically excluded from FAR Part 45. The issue of title of progress payments inventory can be understood by reading the Progress Payments clause (FAR 52.232-16) in its entirety (in particular the "Title" provisions in -16 (d) (1)-(7)). The DoD Manual for the Performance of Contract Property Administration, DoD 4161.2-M, correctly states that progress payment inventory is exempt from FAR 45 requirements and that the property administrator's involvement is limited to supporting requests for assistance from the Contractor Officer.

Recommendation 1: "We recommend that the Under Secretary for Acquisition clarify DoD Manual 4161.2-M, "Performance of Contract Property Administration," to include contractor-acquired property in the contractor property control system reviews when the Government acquired title not solely because progress payments were made."

DoD Comments: Nonconcur. The use of the term "contractor-acquired" property by the DoDIG within this report has been used to mean progress payments inventory. The section on Progress Payments Inventory in DoD Manual 4161.2-M (pages 5-5 & 5-6) explains the

Report  
revised.

property administrator's role in the administration of the Progress Payments clause (FAR 52.232-16) and is in compliance with the Federal Acquisition Regulation.

Recommendation 2: "We recommend that the Defense Plant Representatives Office-Westinghouse include contractor-acquired property on F19626-89-C-0138 as part of future Westinghouse property control system reviews in accordance with Government property administration provisions in the Federal Acquisition Regulation, part 45, Government Property."

DoD Comments: Nonconcur. Again, it appears that this report's misuse of the term "contractor-acquired" property, as defined in FAR Part 45-101, has lead to an inappropriate recommendation. Contractor-acquired property, as correctly defined, must be included within property control system reviews that are conducted by property administrators. We believe that the intent of this recommendation is to have the DPRO-Westinghouse include progress payments inventory as part of its property control systems reviews. Since FAR Part 45 specifically excludes property acquired with progress payments, it follows that the FAR 45.502(a) requirement to review contractors' property control systems does not apply to progress payments inventory.

# Department of the Air Force Comments



OFFICE OF THE ASSISTANT SECRETARY

DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC



28 JAN 1991

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING  
OFFICE OF THE INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE

FROM: SAF/AQ

SUBJECT: Draft Audit Report on the Acquisition of the E-3 Airborne Warning and  
Control System's Radar System Improvement Program, Project Number  
3AS-0020 - INFORMATION MEMORANDUM

The attached is in reply to your memorandum requesting the Assistant Secretary of  
the Air Force (Financial Management and Comptroller) to provide Air Force comments on  
subject report.

Since we recommend an alternative approach on Finding A, we have not assessed  
the estimated savings from component breakout.

SAF/AQPC point of contact is Maj Heidmann, x44590.

CARLEEN A. DRUEHL  
Deputy Assistant Secretary  
(Acquisition)

1 Atch  
Responses to DRAFT Report 3AS-0020





**DEPARTMENT OF THE AIR FORCE**

HEADQUARTERS ELECTRONIC SYSTEMS CENTER (AFMC)

HANSCOM AIR FORCE BASE MASSACHUSETTS

FROM: ESC/AW  
3 Eglin Street  
Hanscom AFB, MA 01731-2115

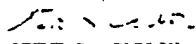
18 January 1994

SUBJ: Response to the DoD Inspector General Draft Audit Report, dated 22 Nov 93, on AWACS RSIP

TO: SAF/AQPC  
Air Force Pentagon  
Washington, DC 20330-1000

1 Attached is the AWACS Radar System Improvement Program response for Findings A, B, and C of the subject report.

2 If you have any questions, or need more information, please contact the undersigned at DSN 478-8108

  
STEVE R. CARLON, GM-15  
Director of Engineering  
Airborne Warning and Control System  
Program Office

1 Atch  
Response Statement

**Response to the  
Department of Defense (DoD) Inspector General  
Draft Audit Report (22 November 1993)**

**Acquisition of the E-3 Airborne Warning and Control System's  
Radar System Improvement Program (Project No. 3AS-0020)**

On 22 November 1993 the Office of the Inspector General Department of Defense, published a draft Audit Report identifying three findings regarding the acquisition of the AWACS Radar System Improvement Program (RSIP). The following discussion identifies these three findings and associated recommendations and provides the AWACS Program Office response to these findings.

**Finding A: Acquisition Planning for Component Breakout**

**Finding**

"The AWACS Program Management Office did not consider making a comprehensive component breakout analysis to support the E-3 RSIP production and deployment decision planned for September 1995. As a result, the Air Force may miss an opportunity to save as much as \$7.7 million over the Future Years Defense Program (FYs 1994 through 1999)."

**DoD IG Recommendation for Corrective Action**

"1. We recommend that the Airborne Warning and Control System Program Management Office

a. Conduct a comprehensive component breakout analysis of Westinghouse radar kits in time to support the E-3 Radar System Improvement Program full-rate production and deployment decision planned for September 1995.

b. Break out components if the breakout review shows that breakout will result in net savings.

2. We recommend that the Commander, Electronic Systems Center, provide the Airborne Warning and Control System Program Management Office the resources to plan and manage a component breakout program as required."

**Response**

**Non-concur with finding, concur with recommendation 1, non-concur with recommendation 2**

Prior to contract award in September 1989, the RSIP program office conducted a component break-out analysis and documented it in the June 1989 Acquisition Strategy Report (ASR) which was used as a basis for the AFSARC Milestone II decision. The ASR said "Production schedule constraints make conditions unfavorable for component breakout early in production. Breakout of the Group B components prior to kit proofing would require additional government resources to negotiate and manage the contracts, would increase the Air Force's cost and schedule risk and would erode the prime contractor's total radar set performance responsibility. These factors argue against immediate breakout, however, breakout will be reconsidered after the initial production buy."

The RSIP program is currently about 20 months away from the AFSARC III Low Rate Initial Production (LRIP) decision. In December 1993, the program office began an iterative breakout analysis process which will evaluate the cost, schedule and technical risks of various Group A and Group B components, to include those listed in the DoD IG report. The goal of the iterative breakout analysis process is to recommend breakout candidates for both LRIP and the Full Rate Production phases of the program. Breakout candidates must comply with the DFARS which says that a breakout must not jeopardize quality, reliability, performance or timely delivery of the system. The production acquisition strategy will be briefed to, and approved by, ESC/CC and his staff prior to the AFSARC decision. The component breakout strategy will be a key topic for this briefing and the ESC staff will thoroughly evaluate the program office's assessment of cost, schedule and technical risk, as well as the ability of ESC to mitigate any or all of these risks through additional manpower.

Based upon the above, recommend that the DoD IG change Finding A to state that the AWACS Program Management Office did consider component breakout prior to FSD contract award in September 1989. Also, based upon the above, recommend that the DoD IG delete recommendation number two as ESC/CC and his staff are continuously involved in approving all portions of a production acquisition strategy, to include component breakout and program office manpower allocations.

**Finding B: Contract Award Fees**

**Finding**

"The Award Fee Review Board recommended award fee amounts that were not substantiated by Westinghouse's performance on the RSIP contract. As a result, the Award Fee Review Board recommended more than \$1 million in Westinghouse award fee payments that were not warranted."

**DoD IG Recommendation for Corrective Action**

"We recommend that the Radar System Improvement Program Award Fee Review Board, Air Force Electronic Systems Center

1. Establish a scoring methodology that is consistent with contract F19628-89-C-0138 award fee plan performance criteria.
2. Determine and justify award fee recommendations for evaluation periods six and seven for contract F19628-89-C-0138 in accordance with the award fee plan performance criteria and the revised scoring methodology.

**Response**

**Non-Concur with finding, concur with recommendation**

The intent of the award fee program is to provide a subjective method for the Fee Determination Official (FDO) to recognize performance during the award fee period and to stimulate improved performance in upcoming periods. The finding that more than \$1 million in award fee payments were not warranted or substantiated by Westinghouse's performance does not allow for the subjective evaluation or incentivization strategy imposed by the FDO.

As with any process, however, the fee determination process can always be improved and we believe that the DoD IG recommendations are a step in that direction. Since period six

Report  
revised.

## Department of the Air Force Comments

### Final Report Reference

(ending 25 Sep 93) was over before the DoD IG recommendations were released, we have no way to effect a change in the process used for that period except to affirm that the scoring methodology was consistent with the Award Fee Plan currently on contract F19628-89-C-0138. For period seven (26 Sep 93 through the end of the contract), we are taking steps to effect a bilateral contract change to revise the criterion, deleting the objective (measurable) schedule and radar performance criterion. New criterion will emphasize subjective (judgmental) factors such as contractor management's cooperation with their associate contractor and efforts to minimize overall program costs. These subjective efforts are believed to be far more difficult to incentivize than are the current subjective criteria, and are therefore more appropriate for the Award Fee. The new plan also will divide period seven into three new periods.

Based upon the above, recommend that the DoD IG change Finding B to state that the FDO authorized Westinghouse Award fees which were substantiated by the FDO's subjective determination of Westinghouse's performance on the Westinghouse RSIP contract.

#### Finding C: Property Management

##### Finding

"Defense Plant Representative Office-Westinghouse was excluding contractor-acquired property purchased on the E-3 RSIP contract from its review of Westinghouse's property control system. As a result, approximately \$10 million of contractor-acquired property may not be transferred to the Government at the completion of the Westinghouse contract."

##### DoD IG Recommendation for Corrective Action

"1. We recommend that the Under Secretary of Defense for Acquisition clarify DoD Manual 4161.2-M, "Performance of Contract Property Administration," to include contractor-acquired property in the contractor property control system reviews when the Government acquired title not solely because progress payments were made.

2. We recommend that the Defense Plant Representative Office-Westinghouse include contractor-acquired property on contract F19628-89-C-0138 as part of future Westinghouse property control system reviews in accordance with Government property administration provisions in Federal Acquisition Regulation, part 45, "Government Property."

##### Response

#### Non-Concur

The Defense Logistics Agency (DLA) has responded to this recommendation through DLA channels. (Reference Attachment)

##### General Comments/Corrections

1. Page 2, fourth paragraph and page 6, first paragraph. The RSIP program will be reviewed by the Air Force Acquisition Executive for Low-Rate Initial Production (LRIP) vice "full-rate production." Due to budgetary constraints, RSIP production quantities (for the US) will be constrained by the FYDP as compared to those quantities that benefit by cost breaks for quantity orders.

2. Page 15, second paragraph after Table 1. "March 22, 1992" should be changed to March 22, 1993. This change to the Westinghouse Award Fee Plan came in 1993.

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revised.

14  
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revised.

**Summary**

The AWACS Program Office has thoroughly reviewed the findings and recommendations of the DoD IG draft Audit Report. Based upon this review, we non-concur with all findings but concur with two of the recommendations.

**RSIP Point of Contact:**

Maj Lindsay DSN 478-5822 ESC/AWR

# Defense Logistics Agency Comments



DEFENSE LOGISTICS AGENCY  
HEADQUARTERS  
CAMERON STATION  
ALEXANDRIA, VIRGINIA 22304-6100



IN REPLY  
REFER TO

DDAI


110 JAN 1994

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING,  
DEPARTMENT OF DEFENSE

SUBJECT: DoD IG Draft Report on The Acquisition of the E-3  
Airborne Warning and Control Systems's Radar System  
Improvement Program (Project No. 3AS-0020)

This is in response to your request of 22 November 1993.

2 Encl

  
JACQUELINE G. BRYANT  
Chief, Internal Review Office

cc:  
AQCOE

TYPE OF REPORT: AUDIT

DATE OF POSITION:

PURPOSE OF POSITION: INITIAL POSITION

AUDIT TITLE: Draft Report on The Acquisition of the E-3 Airborne Warning and Control System's Radar System Improvement Program (Project No. 3AS-0020)

FINDING C: Property Management. Defense Plant Representative Office-Westinghouse was excluding contractor-acquired property purchased on the E-3 RSIP contract from its review of Westinghouse's property control system. DPRO officials believed that the FAR, part 45, "Government Property," exempted all contractor-acquired property purchased through contractor progress payments from the DPRO's review of Westinghouse's property control system. As a result, about \$10 million of contractor-acquired property may not be transferred to the Government at the completion of the Westinghouse contract.

DLA COMMENTS: Nonconcur. The DLA DPRO Westinghouse Property Administrator (PA) is in full compliance with all the property provisions of the RSIP contract. The IG finding involves "Progress Payment" inventory which is monitored differently than standard Government-furnished property. Part 45 states that progress payment inventory is excluded from the normal property control system analysis because the Government does not have title to progress payment inventory. Property acquired via progress payments is monitored under the provisions of the Material Management and Accounting System (MMAS). The DPRO PA participates in the MMAS evaluations, as scheduled by the contracting officer, to provide technical input on system requirements related to inventory control. The DPRO PA ensures that contractor maintains an adequate audit trail of property related actions for Government-owned and progress payment materials.

Chapter 5, paragraph D.4.a. of DoD 4161.2-M, DoD Manual for the Performance of Contract Property Administration, states that, "Although progress payment inventory is not subject to FAR 45.5, the contractor is required to adequately control this property. Special property reviews of progress payment inventory shall be performed at the request of the contracting officer". At the request of the contracting officer, the PA did perform a special review of the progress payment inventory. The review found Westinghouse to be in full compliance with the provisions of the contract relating to accountability and record-keeping for contractor-acquired property on the RSIP Contract.

INTERNAL MANAGEMENT CONTROL WEAKNESSES:


- (X) Nonconcur (Rationale must be documented and maintained with your copy of the response)
- ( ) Concur; however, weakness is not considered material (Rationale must be documented and maintained with your copy of the response)
- ( ) Concur; weakness is material and will be reported in the DLA Annual Statement of Assurance.

ACTION OFFICER: Loretta Bowman, AQCOE, 274-7753

PSE REVIEW/APPROVAL: Glenn Patrick Phillips, RADM, USN, Acting Exec Dir,  
4 Jan 94

COORDINATION: P. Trkula, CAILP, 5 Jan 94  
D. Stumpf, DDAI, 6 Jan 94  
J. Bryant, DDAI, 6 Jan 94

DLA APPROVAL: 7 JAN 1994

  
LAWRENCE FARRELL, JR.  
Major General, USAF  
Principal Deputy Director

## Defense Logistics Agency Comments

TYPE OF REPORT: AUDIT

DATE OF POSITION:

PURPOSE OF POSITION: INITIAL POSITION

AUDIT TITLE: Draft Report on The Acquisition of the E-3 Airborne  
Warning and Control System's Radar System Improvement  
Program (Project No. 3AS-0020)

RECOMMENDATION C.2: Recommend that the Defense Plant Representative  
Office-Westinghouse include contractor-acquired property on contract  
F19628-89-C-0138 as part of future Westinghouse property control system  
reviews in accordance with Government property administration provisions in  
Federal Acquisition Regulation, part 45, "Government Property."

DLA COMMENTS: Nonconcur. See DLA comments under finding C.

### INTERNAL MANAGEMENT CONTROL WEAKNESSES

- (X) Nonconcur (Rationale must be documented and maintained with your  
copy of the response)
- ( ) Concur; however, weakness is not considered material (Rationale must  
be documented and maintained with your copy of the response)
- ( ) Concur; weakness is material and will be reported in the DLA Annual  
Statement of Assurance.

### RECOMMENDATION MONETARY BENEFITS:

DLA COMMENTS:

ESTIMATED REALIZATION DATE:

AMOUNT REALIZED:

DATE REALIZED:

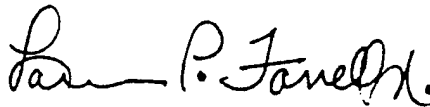
ACTION OFFICER: Loretta Bowman, AQCOE, 274-7753

PSE REVIEW/APPROVAL: Glenn Patrick Phillips, RADM, USN, Acting Exec Dir,  
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COORDINATION: P. Trkula, CAILP, 5 Jan 94  
D. Stumpf, DDAI, 6 Jan 94  
J. Bryant, DDAI, 6 Jan 94

DLA APPROVAL:

7 JAN 1994



WILLIAM P. FARRELL, JR.  
RADM, USN  
Principal Deputy Director



## Audit Team Members

Donald E. Reed	Director, Acquisition Management Directorate
John E. Meling	Audit Program Director
David M. Wyte	Audit Project Manager
Donald Stockton	Senior Auditor
Leon R. Wilkinson	Senior Auditor
Robert R. Johnson	Auditor
Bradley M. Heller	Auditor
Curtis W. Jackson	Auditor
Andrea D. Marsich	Auditor
Mary Ann Hourclé	Editor
Tammy O'Deay	Administrative Support

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Inspector General, Department of Defense  
400 Army Navy Drive (Room 801)  
Arlington, VA 22202-2884

**D. Currently Applicable Classification Level:** Unclassified

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**F. The foregoing information was compiled and provided by:**  
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